Notes from July 15, 2004 TeV BPM Upgrade/Task Force Meeting
Stephen Wolbers

The discussion followed a set of slides shown by Jim Steimel and those slides can be found in AD doc #1258.

Jim began by stating a goal: Read out and process beam signals before the August shutdown begins.

Other related or supporting activities are:

- Understand the EchoTek board
- Coordinate the H/W and S/W activities
- Plan the work

First slide (see doc 1258):

A list of integration tasks required before we can process test signals on a teststand and then beam signals in the Tevatron. These are mostly straightforward and primarily involve the use of the new hardware and software.

Second slide :

Resources available (H/W):

4 VME crates (2 Dawn, 2 other)
31 MVME processors
2 loaned EchoTek boards, 1 Recycler EchoTek board
1 Recycler timing system, 1 more coming
1 crate of beam simulation H/W
1 clock generator
2 PMC UCD cards
5 filter boards
1 accelerator clock in FCC
1 new timing module being stuffed
1 oscilloscope (more are easy to get)
1 waveform generator

Third slide:

Resources available (S/W):

R25 (need to link this to the new VME driver, new EchoTek)
Recycler VME driver, FE software
New VME driver, FE software

Labview

Discussion:

Discussion of the precise goals. Jim will write something down for next week. This will allow the project to focus on a few important tasks.

Discussion of the EchoTek signal processing/Greychip. Bob proposes that we use the setup that works for the Tevatron measurements that we have been making since last December or so. More sophisticated/optimized Greychip programming is not necessary for this integration step.

Question of output: I and Q or positions? Fast time plot or structures. We all agree that we need structures (retdat).

pbar? We won't worry about making a pbar measurement at this time.

Time. Goal is to start measuring beam the week of August 16 (last week of beam).

Action Items:

Near Term:

1. New software to connect R25 and the new boards.
2. ACNET devices need to be properly defined.
3. ADC class. Required to connect the new FE software to the new hardware.

Further off:

1. Filter Board
2. Timing Module and testing

At this point Dehong gave a talk about strategy to make TBT and closed orbit measurements. It was an interesting proposal and should be examined and discussed.

We will meet Monday July 19 at 11:00 A.M. in the Penthouse. As the activity level ramps up and there need to be short coordinating meetings we will schedule them probably as a phone con/video con every morning. People can show up in person if they want!